Title: The effect of analytic and synthetic methods in patients with muscular dystrophy

Objectives: Two main objectives are set in my thesis. The first objective is to summarize the theoretical knowledge concerning problems of muscular dystrophy, its classification, hereditary predispositions, diagnostic procedures, subsequent care and to present international grant projects, and the muscular dystrophy world organization and registry.

The second objective is to assess the effect of the six months lasting physiotherapeutic intervention on the self-sufficiency and self-reliance of given probands - the individuals suffering from the muscular dystrophy at the age from 40 to 66 years, and to assess the extent of muscular shortening according to Janda in the experimental group

Methods: This thesis is of an exploratory nature. It is an experimental study focused on the assessment of the effect of the physiotherapeutic intervention in the individuals suffering from the muscular dystrophy. To assess the extent of the improvement I used the information collected during the kinesiologic analyses (entry, final, follow up) that included goniometric assessment according to Janda, the examination of shortened muscles according to Janda, the examination of joint play according to Lewit and Rychlíková, the examination of reflex changes according to Lewit, the aspection – in sitting position, supine position, standing position, walking, dynamic examination of the spine and breathing, neurology examination, and the Barthel index. In selected groups of probands I compared only some selected variables, which I then incorporated into results. I presented the results using tables and graphs.

Results: Based on the comparison of the entry and final kinesiologic examination performed in the experimental and control groups, the hypothesis no. 1 was proved; it is then evident that the physiotherapeutic intervention results in the delay of the progression of the disease, as it was assessed by selected procedures within the kinesiologic examination. However, the hypothesis no. 2 was not proved. Based on the performed assessment using the Barthel index, there were not seen any changes in the improvement either in the experimental or in the control group.

Keywords: muscular dystrophy, kinesiologic analysis, the Barthel index, shortened muscles